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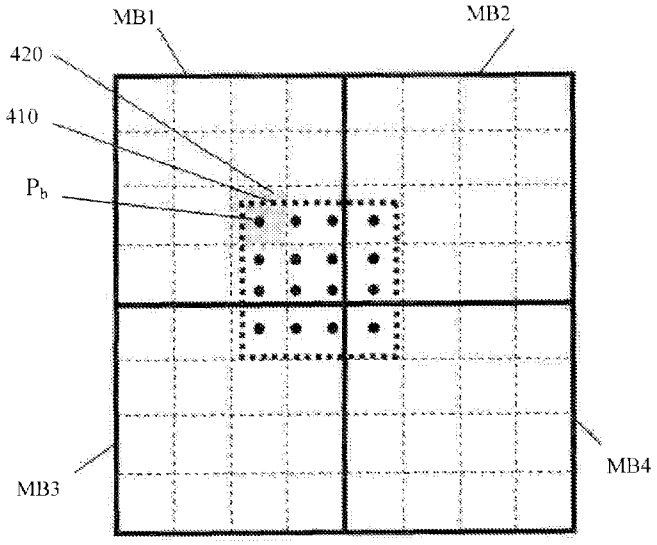
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(54) **Title:** IMPROVED INTER-LAYER PREDICTION FOR EXTENDED SPATIAL SCALABILITY IN VIDEO CODING



(57) **Abstract:** An improved system and method for providing improved inter-layer prediction for extended spatial scalability in video coding, as well as improving inter-layer prediction for motion vectors in the case of extended spatial scalability. In various embodiments, for the prediction of macroblock mode, the actual reference frame index and motion vectors from the base layer are used in determining if two blocks should be merged. Additionally, multiple representative pixels in a 4x4 block can be used to represent each 4x4 block in a virtual base layer macroblock. The partition and motion vector information for the relevant block in the virtual base layer macroblock can be derived from all of the partition information and motion vectors of those 4x4 blocks.

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